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EUROPEAN PATENT OF E

Patent Abstracts of Japan

PUBLICATION NUMBER : 55012109
PUBLICATION DATE : 28-01-80

APPLICATION DATE : 08-07-78
APPLICATION NUMBER : 53083280

APPLICANT : AGENCY OF IND SCIENCE & TECHNOL;

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INT.CL. : C08B 37/08

TITLE : PREPARATION OF CHITOSAN

ABSTRACT : PURPOSE: To prepare a chitosan useful as a raw material of a membrane without lowering the performances characteristic of a polymer, by repeating the processes comprising heating of chitin together with an alkali solution, removal of the alkali solution and washing with water, thereby effecting the deacetylation of chitin.

CONSTITUTION: Non-powdered chitin is heated together with a 40-50% alkali solution at 60-120°C for 30-120 min. to give a deacetylated chitosan. The chitosan is separated from the alkali solution, washed with water, and again heated together with the concentrated alkali solution to deacetylate. If desired, water washing and the treatment with the alkali solution are repeatedly carried out. The heating time is decreased below a half of the original by this process. Deacetylation degree of 78% is obtained in the first treatment, 91% in the second and 95.5% in the third.

EFFECT: The time required to attain a desired deacetylation degree can be decreased and the performances of the chitosan as a polymer can be maintained due to the reduced heating time.

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